DOPPLER ULTRASOUND EQUIPMENT

MODEL 3300

Cost-Effective Ultrasound Imaging Solution for OB/GYN

With experienced insight into ultrasound industry, Apogee 3300, the best choice of ultrasound system for medical ultrasound practitioners who are seeking for balance of cost and performance

As the entry level of Color Doppler ultrasound system integrated with the latest imaging technologies, the Apogee 3300 provides the configuration of a 17 inch medical LCD monitor, an 8 inch touch screen and 4 probe connectors(3 active&1 docking), which can support multiple probes, such as convex, linear, endocavity, micro convex, 4D volumetric and bi-plane probes.

Value-added options:

1, Compound Imaging

The system has the ability to scan the target by multi-direction beam forming thus easing echo artifacts and improving spatial resolution

2, Panoramic Imaging

Extending wider view for doctors to scan large area tissue, the system particularly allows doctors to monitor the scanning quality via simultaneous display of B mode/ panoramic mode

3, 3D/4D Imaging

With built-in software, 3D images can be easily achieved together with various processing functions such as rotation, zoom in/out, and trim. Moreover, 4D volume probes enable the system to real-time display volumetric information of fetus or organ conveniently and efficiently.

4, Auto IMT Measurement

The system automatically helps measure the Intima-Media Thickness of the carotid artery wall, so as to evaluate cardiovascular diseases such as hypertension diabetes

Quality Imaging Technology

1, Adaptive Speckle Reduction

The system may automatically track, identify and intensify useful tissue-characteristic information. Meanwhile, noise is filtered to increase S/N ratio, enabling clearer tissue boundary and more obvious image gradation, which is easy for distinguishing early-stage lesion tissues.

2, Multi-beam Forming Technology

This technology can multiply receiving and processing scan lines of images from each element, which largely increases the frame rate of images in B mode and 4D mode and contributes to outstanding cardiac performance.

3, The extended field of view displays more image information without sacrificing image quality, a convenient approach especially for scanning big-size organs.

4, Linear Steering

By steering the imaging area of linear array, sonographers can easily scan neighboring organs without moving the probe, thus scanning becomes more efficient easier.

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Driving technology always brings changes for customers, so does Apogee 3500 Omni

Equipped with extraordinary efforts by our company, Apogee 3500 Omni is the right choice with cost-effective benefits for radiologists and cardiologists

Intelligent Clinical Solutions

1, TDI

It enables visible velocity indication of heart wall motion based on Doppler effect, and provides supporting evidence for cardiac diagnosis.

2, Built-in ECG Module

It helps to indentify different time phases in the cardiac cycle for accurate diagnosis.

3, Auto IMT Measurement

It automatically measures Intima-Media Thickness especially for carotid artery wall, so as to evaluate cardiovascular diseases such as hypertension diabetes.

4, Anatomical M Mode

With free 360-degrees rotation sample lines, up to 3 line options, it assists more exact analysis of cardiac structure movement even in difficult heart positioning.

5, Tie Index Measurement

It offers echocardiography evaluation of ventricular function in adults and children

6, Stress Echo

The stress echo package, including physical and pharmacological stress, assists in observing how cardiac muscles respond to stress, for diagnosis of coronary artery disease.

7, Color M Mode

By combining Color Flow Doppler with Motion Echocardiography, it provides an effective way to evaluate the 2D/time relations between cardiac flow and cardiac structure movements.

8, High-definition Phased Array Probe

It offers both options of phased array probes: low frequency(1.7 to 4.0 MHZ) specialized in adult cardiac exams, and hig frequency(3.5-7.0MHz) exclusive for pediatric cardiac exams.

9, Panoramic Imaging

The panoramic imaging allows doctors to get a wide view of large area tissues

10, Smart One Key Optimization

With only one button clicking, the system will help doctors to achieve a reasonable good image in B mode and pulsed wave Doppler mode, largely increasing the diagnosis efficiency.

MODEL 3500

Extraordinary Imaging Technology

We understand what the importance of image quality means to ultrasound specialists, With pioneering imaging technology, Apogee 3500 Omni explains the understanding of image quality from us.

1, Multi-bean Forming T echnology

The system has the ability to multiply receive and process scanning lines of images from each element, which largely increases the frame rate of images in B mode and 4D mode and contributes to outstanding cardiac performance

2, Accurate Doppler Flow Imaging

The system is designed to analyze the position of Doppler signals and make adaption simultaneously, for the purpose of enhancing Doppler signals, increasing the penetration of Doppler signals and reducing Doppler artifacts.

3, Spectrum Compound Imaging

The system both emits and receives ultrasonic waves and echoes in varieties of frequency range, to guarantee both resolution in the near field and penetration in the far field.

4, Broadband Harmonic Imaging

The system can successfully achieve both high penetration and spatial resolution in Harmonic mode by compounding varieties of Harmonic echoes.

5, Adaptive Speckle Reduction Technology

The system is able to automatically track, identify and enhance useful tissue-characteristic information via 2 modes of SRT technology, as a result

Reducing noise and artifacts

Purifying tissue shading and edging

Improving contrast resolution

Helping early identification of tissue/structure lesion

6, Spatial Compound Imaging

The system can scan the target by multi-direction beam forming thus to ease echo artifacts and improve spatial resolutio

MODEL 3800

With the birth of the first volumetric probe in China, Our company found itself determined to devote to women's healthcare

Apogee 3800 Touch is an extraordinary ultrasound imaging system for women's health, including obstetrics, gynecology, maternal fetal medicine, assisted reproductive medicine and breast medicine.

Exceptional 4D experience in OB/GYN

The system supports abdominal volumetric probes (resolution priority/penetration priority) as well as a transvaginal volumetric probe, to obtain 3D/4D images both in obstetrics and gynecology application, providing more detailed and complete volumetric information with multi-rendering modes, to assist the observation and diagnosis of fetus wellness and uterus health.

Smart elastography for breast exams

The system supports high-definition linear probes with elastography images to deliver stiffness information of tissues with color code in real time and intelligent pressing guidance. With the smart Elastography developed by our company, The doctors can feel more convinced in early detection of breast cancer.

Extraordinary Ultrasound Experience

1, High Clinical Productivity

Apogee 3800 Touch is facilitated with intelligent clinical functions to provide user-friendly diagnostic experience.

2, Live Panoramic Imaging

Extending wider view for doctors to scan large area tissue, the system particularly allows doctors to monitor the scanning quality via simultaneous display of B mode/Panoramic mode. In addition, when operating this function, doctors can erase the previous image area and continue to generate better panoramic images.

3, Smart on key optimization

With one button pressed, the system smartly adjusts TGC and B gain in B mode as well as base line, PRF and PW gain to obtain the best B/W image and PW image for doctors.

4, Wireless image transmission to iPad/iPhone

This system offers doctors mobile working in the hospital and the clinic via transmitting on-line ultrasound images to iPad/iPhone. Doctors can access the on-scan images via iPad/iPhone even if he/she is away from the ultrasound system.

A-one Imaging Technology

Apogee 3800 Touch inherits the proven imaging technology of our color Doppler model, providing outstanding image quality to support wellness of mothers and babies.

1, Multi-beam Forming Technology

The technology largely increases the frame rate of images in B mode, Color mode and 4D mode.

2, Wideband-beam Emission Technology

The technology remarkably eliminates artifacts and guarantees high resolution in both near and far fields of B mode.

3, Adaptive speckle Reduction Technology

The technology aims at reducing noise and artifacts, purifying tissue shading and edging, improving contrast resolution and helping early identification of tissue/structure lesion

4, Spatial compound imaging

The technology helps to ease echo artifacts and improve spatial resolution.

System Overview

Clinical Application
Abdomen - Obstetrics - Gynecology - Urology - Cardiac - Small Parts - Vascular

Features

Task Indication Light
Built-in Workstation
Custom Keys Preset
Offline Analysis System
Probe Auto-Freeze
Optimization Key Preset
Real-time PIP Magnification

Imaging Modes

B, Dual B, Quad B, M, B/M, CFM, PDI, CDE, CDFI, PW, CW, THI
BW/Color Dual Real-Time Display Mode

Main Technology

DSC (Digital Scan Converter)
DBF (Digital Beam Forming)
RDA (Real-time Dynamic Aperture)
DRA (Dynamic Receiving Apodization)
DRF (Dynamic Receiving Focusing)
DFS (Dynamic Frequency Scan) 32Ch
THI (Tissue Harmonic Imaging)
SNR (Speckle Noise Reduction)
Freehand 3D Imaging Module

Physical Specification

Dimension & weight
Equipment:
530mm×650mm×1370mm; 47 kg
Package: (Wooden Carton)
680mm×710mm×1185mm; 72 kg
Monitor
15”High Definition & Resolution-
Progressive-Scanning Color LCD Monitor
Up/Down Tilt, Left/Right Rotation

MODEL Q3

Probe Parameters

Convex Array Probe TC50
Central Frequency: 3.5MHz
Frequency Range:2.0MHz~6.0MHz
Max. Scanning Depth: 220mm
Abdomen/OB/GYN/Urology
Linear Array Probe TL40
Central Frequency: 7.5MHz
Frequency Range:5.0MHz~12.0MHz
Max. Scanning Depth: 90mm
Small Parts/Vascular
Intra-cavity Probe TC10
Central Frequency: 6.5MHz
Frequency Range:5.0MHz~10.0MHz
Max. Scanning Depth: 70mm
Trans-vaginal/Trans-rectal
Phased Array Probe TP16
Central Frequency: 3.0MHz
Frequency Range:2.0MHz~5.0MHz
Max. Scanning Depth: 200mm
Cardiology
Probe Port & Holder
Probe Ports: 3 Activated Ports
Automatic Recognition
Electronic Probe-shift
Probe Holders: 6 Probe Holders

Standard Package

Main Frame (with 15”LCD Monitor)
Customers can choose two probes according to their need from Convex Probe TC50, Linear probe TL40, Intra-cavity Probe TC10, Phased Array Probe TP16
Power cord/grounding cable
Fuse (2)
User’s Manual - Coupling Gel (0.25L)

Optional Accessories

17”LCD Monitor
Convex Array Probe
Micro Convex Array Probe
Linear Array Probe
Phased Array Probe
Intra-cavity Probe
Patient Data Management Software
THI (Tissue Harmonic Imaging) Software
DICOM 3.0
Pedal Switch
BW/Color Video/Laser/Ink-jet Printer
Puncture Trestle

Certificates

Quality Standards
ISO9001 - ISO13485 - CMD - CE

System Overview

Clinical Application
Abdomen - Obstetrics - Gynecology - Urology - Cardiac - Small Parts - Vascular

Features

Task Indication Light
Built-in Workstation
Custom Keys Preset
Offline Analysis System
Probe Auto-Freeze
Optimization Key Preset
Real-time PIP Magnification

Imaging Modes

B, Dual B, Quad B, M, B/M, CFM, PDI, CDE, CDFI, PW, CW, THI
BW/Color Dual Real-Time Display Mode,

Main Technology

DSC (Digital Scan Converter)
DBF (Digital Beam Forming)
RDA (Real-time Dynamic Aperture)
DRA (Dynamic Receiving Apodization)
DRF (Dynamic Receiving Focusing)
DFS (Dynamic Frequency Scan) 32Ch
THI (Tissue Harmonic Imaging)
SNR (Speckle Noise Reduction)
Freehand 3D Imaging Module

Physical Specification

Dimension & weight
Equipment:
530mm×650mm×1370mm; 47 kg
Package: (Wooden Carton)
680mm×710mm×1185mm; 72 kg
Monitor
15”High Definition & Resolution-
Progressive-Scanning Color LCD Monitor
Up/Down Tilt, Left/Right Rotation

MODEL Q5

Probe Parameters

Convex Array Probe TC50
Central Frequency: 3.5MHz
Frequency Range:2.0MHz~6.0MHz
Max. Scanning Depth: 220mm
Abdomen/OB/GYN/Urology
Linear Array Probe TL40
Central Frequency: 7.5MHz
Frequency Range:5.0MHz~12.0MHz
Max. Scanning Depth: 90mm
Small Parts/Vascular
Intra-cavity Probe TC10
Central Frequency: 6.5MHz
Frequency Range:5.0MHz~10.0MHz
Max. Scanning Depth: 70mm
Trans-vaginal/Trans-rectal
Phased Array Probe TP16
Central Frequency: 3.0MHz
Frequency Range:2.0MHz~5.0MHz
Max. Scanning Depth: 200mm
Cardiology
Probe Port & Holder
Probe Ports: 3 Activated Ports
Automatic Recognition
Electronic Probe-shift
Probe Holders: 6 Probe Holders

Standard Package

Main Frame (with 15”LCD Monitor)
Customers can choose two probes according to their need from Convex Probe TC50, Linear probe TL40, Intra-cavity Probe TC10, PhasedArray Probe TP16
Power cord/grounding cable
Fuse (2)
User’s Manual
Coupling Gel (0.25L)

Optional Accessories

17”LCD Monitor
Convex Array Probe
Micro Convex Array Probe
Linear Array Probe
Phased Array Probe
Intra-cavity Probe
Patient Data Management Software
THI (Tissue Harmonic Imaging) Software
DICOM 3.0
Pedal Switch
BW/Color Video/Laser/Ink-jet Printer
Puncture Trestle

Certificates

Quality Standards
ISO9001 - ISO13485 - CMD CE

MODEL Q6

System Overview

Application
Abdomen
Cardiac
Obstetrics
Gynecology
Urology
Small Parts
Vascular
Pediatrics

Electrical Power

Voltage: 100V~240V
Current: 7.0A/4.0A
Frequency: 50/60Hz

Physical Specifications

Equipment:
910mm×660mm×1470mm; 68kg
Package:
1035mm×725mm×1535mm; 128kg

Conditions

Operating
Temperature: 10°C~40°C
Humidity: 30%~75%
Pressure: 50kPa~106kPa
Shipping/Storage
Temperature: -15°C~50°C
Humidity: 10%~90%
Pressure: 50kPa~106kPa

Connectivity/Media/Peripherals

Transducer Ports: 3 (Activated)
USB Ports: 5
Hard Disc: ≥ 160GB
Footswitch: BNC/USB
Ethernet Port: 1 (10Mb/1000Mb)
External Display: DVI, VGA
External VCR
Digital Video Monitor
Compound Video Output
Barcode Reader
USB Modem
USB Printer
Peripherals/Storage Tray
Digital B/WThermal Printer

Transducers

Convex Array Probe
Frequency:
Central 3.3 MHz
Average Min. 3.15 MHz
Max. 3.85 MHz
Pitch: 0.468 mm
Radius: 60 mm
Number of Elements: 128
Geometric Focus Approx: 90 mm

Micro-Convex Array Probe:
Frequency:
Central 4 MHz
Average Min. 3.6 MHz
Max. 4.4 MHz
Pitch: 0.28 mm
Radius: 20 mm
Number of Elements: 128
Geometric Focus Approx: 90 mm

Linear Array Probe:
Frequency:
Central 10 MHz
Average Min. 7.2 MHz
Max. 8.8 MHz
Pitch: 0.390 mm
Radius: N/A
Number of Elements: 128
Geometric Focus Approx: 30 mm

Intra-Cavity Probe:
Frequency:
Central 6.5 MHz
Average Min. 5.85 MHz
Max. 7.15 MHz
Pitch: 0.205 mm
Radius: 10 mm
Number of Elements: 128
Geometric Focus Approx: 35 mm

Phased Array Probe:
Frequency:
Central 2.5 MHz
Average Min. 2.25 MHz
Max. 2.75 MHz
Pitch: 0.300 mm
Radius: N/A
Number of Elements: 64
Geometric Focus Approx: 30 mm

3D/4D Volume Probe

Imaging Modes

Overview
B, Dual B, Quad B
M, Color M, Anatomical M
Color, Dual Color, Simultaneous 2D/Color
Compound, Dual Compound
PW, CW, Triplex
CFM, PD, Directional PD, CD
Freehand 3D

Remote Diagnosis Module
DVD/CD Recorder

Image Storage
Storage Format:
PNG, AVI, MPEG, RAW(cine)
Export Video Format:
AVI, MPEG, DICOM
Export Image Format:
PNG, JPEG, BMP, GIF, DICOM
Cine Frame Capacity:
> 8000 frames
Stored Image Capacity:
> 50000 images
CD-R Storage
DVD Storage

Technology
TP-view Tech
Panoramic Imaging Tech
Speckle Reduction Tech
Dual & Triplex Synchronous Display
Elastography Tech
Directional Power Doppler
Real-time 3D Volume Imaging Tech
Expand-Pulse-Inversion Imaging Tech
Color Deflection Tech
Free-hand 3D Imaging Tech
Spatial-Compound Imaging Tech
Pulse-Inversion Harmonic Imaging Tech
Imaging Parameters Preset
Custom Key/Optimization Key

ECG (Optional)
ECG Module
ECG Lead
ECG Invert
ECG Baseline
ECG Gain

Embedded Computer
CPU:- Intel E4300 (Minimum)
Hard Drive (Patient) Data: - ≥ 500 GB

Hardware Specification
LCD Monitor
Size (Diagonal): 15”
Contrast Ratio: 1500:1
Resolution: 1024×768 pixels
Brightness: 250 cd/m2
Color Depth: 24bit
Rotate Angle: ±90°
Grey Levels: 256
Touch Screen
Size (Diagonal): 8.4”
Weight: 330g
Contrast Ratio: 600:1
Resolution: 1024×768 pixels
Brightness: 450 cd/m2

Standard 3D/4D, Advanced 3D/4D
Panoramic, Elastography
Elastography Comparative
Tissue Doppler Imaging (TDI)
Expand Pulse Imaging (EPI)
Combined Modes
Dual B, Quad B, B/M, B B/C, Dual B/C
B/PW, B/CW, B B/Power, Dual B/Power
Dual Compound, B/Elasto, B B/Elasto
B B/TDI, Dual B/TDI
B/C/M, B/C/PW, B/C/CW
B/Power/M, B/Power/PW, B/Power/CW
B/TDI/M, B/TDI/PW, B/TDI/CW
Standard 3D/4D Mode
Maps: 17
Line Density: 64~192
Rendering Quality: Low, Med, High
Frames per Volume: 3~125
Field of View (Max): 5°~75°
Viewing Options: A/B/C/VR, A/VR,
C/VR, V
Rendering Methods: Surface, Surface-
Smooth, Maximum, X-Ray
One Sweep 3D, 3D ROI, 3D Niche Mode,
Measurements, Sculpt, Annotations,
Contrast, Threshold
Advanced 3D/4D Mode
Maps: 17
Line Density: 64~192
Rendering Quality: Low, Med, High
Frames per Volume: 3~125
Field of View (Max): 5°~75°
Max Volume Rate: 3
Viewing Options: A/B/C/VR, A/VR,
C/VR, V
Rendering Methods: Surface, Surface-
Smooth, Maximum, X-Ray
Live 3D/4D imaging, One Sweep 3D,
Rendering 3D ROI, Multi-Slice,
3D Niche Mode, Measurements,
Sculpt, Annotations, Contrast, Threshold,
Save Cine-loops, Save Volume

Analysis Packages
OB
Cardiac
Abdominal
GYN
Urology
Vascular
Small Parts

Standard Package
Main Frame (with a 15”LCD Monitor)
Customers can select any 2 probes
according to their needs from Convex,
Intra-cavity, Linear and Phased Array
Probes.
Power cord/grounding cable
Fuse (2)
User’s Manual

Grey Levels: 64
Input Signal: LVDS
Compatible with bare hands/thin medical gloves (e.g., latex, vinyl, nitrile)

Software Languages
English
German
Spanish
Italian
Czech
French
Russian
Simplified Chinese
Brazilian Portuguese

Imaging Performance
Startup Time (Max):
Avg. < 90 seconds
Preset Switching Time:
Avg. < 1 second
Storage Time (Image to Disk):
Avg. < 0.5 second

Coupling Gel (0.25L)

Optional Accessories
17”LCD Monitor
4D Imaging Module
Elastography Module
Convex Array Probe
Micro Convex Array Probe
Linear Array Probe
Phased Array Probe
4D Volume Probe
Intra-cavity Probe
DICOM 3.0
Pedal Switch
Laser, Ink-jet Printer
Puncture Trestle
Barcode Reader
ECG
UPS

Certificates
Quality Standards
ISO9001
ISO13485
CMD
CE Certificate

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MODEL V3

Image Mode: B, 2B, 4B, M, B/M, CDFI, CDE, CCD, PW, CW.
Advanced Technology: 3D image supported.
One key image optimization: various of inner checking types/checking types edition and creation/making superior image by pressing
of doctor according to different checking types.
English guide system: real time notice of operation steps, helping doctor get familiar with the operation of device quickly.
Auto freezing protection of the probe: auto freeze the probe in the presetting time, lengthen the life of the probe.
English report system: record the calculating parameters automatically, output English report directly; make the inspection steps much
more efficient.
Expansion port: Video port, S-Video port, RS-232 port, USB2.0 port, VGA port, DICOM3.0 port

Probe supported
Convex probe, vaginal probe, linear probe, phrased array probe; micro convex probe

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